

# Air Quality Conformity (PM<sub>2.5</sub>) & 2011 TIP Development Workshop

June 2, 2010



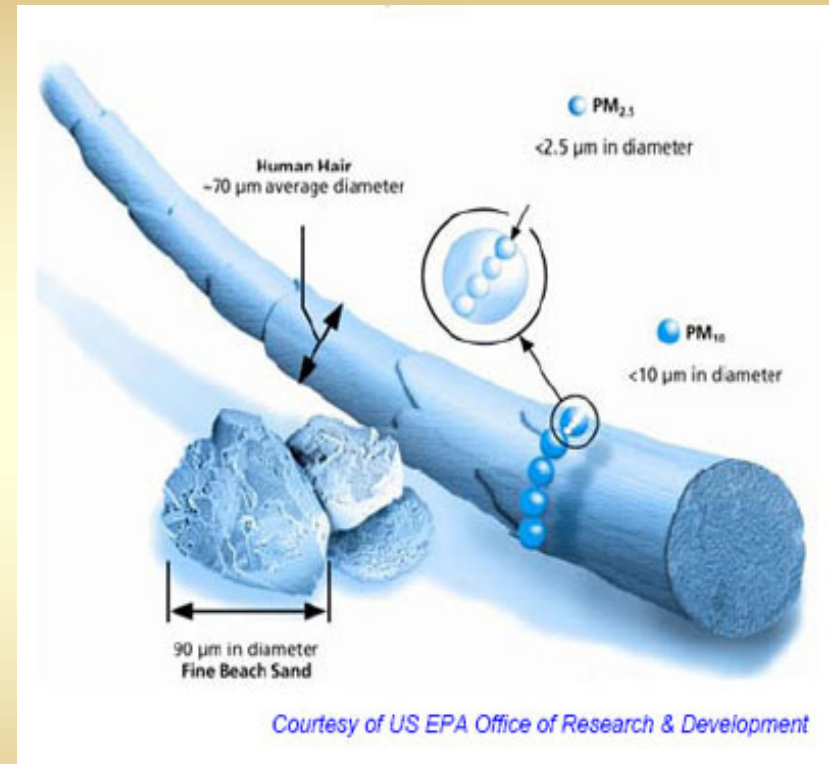
# Workshop Objectives

- **Explain PM<sub>2.5</sub> project-level conformity requirements and Bay Area's PM<sub>2.5</sub> interagency consultation procedures**
- **Provide a brief tutorial on the 2011 TIP development procedures with emphasis on what the sponsors need to do between June 4 and June 17**
- **Demo the new Air Quality Module in the Fund Management System (FMS)**



# Fine Particulate Matter (PM<sub>2.5</sub>)

- **Particles smaller than 2.5 microns can be inhaled deeply into lungs and cause damage to our health**
- **Sources of PM include combustion activities (motor vehicles, power plants, wood burning, etc.)**
- **EPA designated Bay Area as nonattainment for national 24-hour PM<sub>2.5</sub> standard on December 14, 2009**



# PM<sub>2.5</sub> Planning Requirements

- **RTP and TIP must demonstrate transportation conformity** (effective December 14, 2010)
- **PM<sub>2.5</sub> hot-spot analysis must be prepared for certain roadway and transit projects involving diesel vehicle traffic** (effective December 14, 2010)
- **State Implementation Plan must outline how region will attain and maintain the standard**  
(by December 2012)



# What is a PM<sub>2.5</sub> Hot-Spot Analysis?

**Per 40 CFR 93.101, a PM<sub>2.5</sub> Hot-Spot Analysis:**

- **Estimates likely future localized PM<sub>2.5</sub> pollutant concentrations and compares those concentrations to the national ambient air quality standards**
- **Estimates the air quality impacts of a project on a small scale, such as at a congested roadway intersection or a bus terminal, and uses an air quality dispersion model to determine the effects of emissions on air quality**
- **Is used to demonstrate that a transportation project meets Clean Air Act conformity requirements to support state and local air quality goals with respect to potential localized air quality impacts**



# PM<sub>2.5</sub> Project-Level Conformity Requirements

## ■ PM<sub>2.5</sub> Hot-Spot Analysis not required for:

- Projects exempt under 40 CFR 93.126
  - **Examples:** Safety improvements (RR crossing, shoulders, medians, lighting, etc.); mass transit (transit operations, purchase of vehicles/operating equipment, renovation of transit buildings/structure, etc.); bicycle/pedestrian projects, rideshare projects; etc.
- Traffic signal synchronization projects under 40 CFR 93.128; or
- Projects that use no federal funds and/or require no federal approval

## ■ PM<sub>2.5</sub> Hot-Spot Analysis must be prepared for:

- Projects of Air Quality Concern under 40 CFR 93.123(b)(1)
- Projects that use federal funds and/or require federal approval



# What Is a Project of Air Quality Concern?

**Per 40 CRF 93.123(b)(1):**

- **New or expanded highway projects that have a significant number of or significant increase in diesel vehicles;**
- **Projects affecting intersections that are at Level-of-Service D, E, or F with a significant number of diesel vehicles, or those that will change to Level-of-Service D, E, or F because of increased traffic volumes from a significant number of diesel vehicles related to the project;**
- **New bus and rail terminals and transfer points that have a significant number of diesel vehicles congregating at a single location;**
- **Expanded bus and rail terminals and transfer points that significantly increase the number of diesel vehicles congregating at a single location; and**
- **Projects in or affecting locations, areas, or categories of sites which are identified in the PM2.5 or PM10 applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violation.**



# What is the EPA Transportation Conformity Guidance for Quantitative Hot-Spot Analyses?

- **Replacement for the 2006 Qualitative Guidance**
- **Overview of the Analytical Process**
  - > Emissions (EMFAC or MOVES)
  - > Air Quality Modeling (CAL3QHCR or AERMOD)
  - > Evaluate Results "NAAQS/No Build
  - > Assess Potential Mitigation
- **Comments are Due By July 19, 2010.**
- **See Requested Questions for Comment**
  - > Comments can be sent electronically to [PMhotspot-comments@epa.gov](mailto:PMhotspot-comments@epa.gov)





# What is the Purpose of Interagency Consultation?

- **Determine if project is deemed a “project of air quality concern” pursuant to 40 CFR 93.123(b)(1)**
- **Evaluate the assumptions, methods and analysis of the PM<sub>2.5</sub> hot-spot analysis**



# Bay Area Interagency Consultation Procedures

(MTC Resolution No. 3946)

- **Interagency consultation is facilitated through MTC's Air Quality Conformity Task Force**
- **Sponsor submits project information, and Conformity Task Force determines if project is of air quality concern and therefore requires a PM<sub>2.5</sub> hot-spot analysis**
- **Sponsor submits PM<sub>2.5</sub> hot-spot analysis for review by Conformity Task Force**
- **After consultation, sponsor completes PM<sub>2.5</sub> hot-spot analysis and seeks approval from FHWA and FTA**



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